



COMMONWEALTH OF MASSACHUSETTS  
EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS  
**DEPARTMENT OF ENVIRONMENTAL PROTECTION**

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Secretary

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Commissioner

**MODIFIED CERTIFICATION FOR GENERAL USE**

Pursuant to Title 5, 310 CMR 15.000

Name and Address of Applicant:

CULTEC, Inc.  
P.O. Box 280  
878 Federal Road  
Brookfield, CT 06804

Trade name of technology and model: CULTEC chamber models Field Drain Contactors C1, C2, C3 and C4, Contactor EZ-24, 100 and 125 and Recharger 180, 280 and 330 (hereinafter the "System"). Schematic drawings of each model are attached and made a part of this Certification.

Transmittal Number: W037676

Date of Issuance: December 17, 2003

**Authority for Issuance**

Pursuant to Title 5 of the State Environmental Code, 310 CMR 15.000, the Department of Environmental Protection hereby issues this Certification to: CULTEC, Inc., P.O. Box 280, 878 Federal Road, Brookfield, CT 06804 (hereinafter "the Company"), for General Use of the System described herein. Sale and use of the System are conditioned on and subject to compliance by the Company and the System owner with the terms and conditions set forth below. Any noncompliance with the terms or conditions of this Certification constitutes a violation of 310 CMR 15.000.

SIGNED

Glenn Haas, Director  
Division of Watershed Management  
Department of Environmental Protection

12/17/03

Date

**I. Purpose**

This information is available in alternate format. Call Debra Doherty, ADA Coordinator at 617-292-5565. TDD Service - 1-800-298-2207.

DEP on the World Wide Web: <http://www.mass.gov/dep>



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1. The purpose of this Certification is to allow use of the System in Massachusetts, on a General Use basis.
2. With the necessary permits and approvals required by 310 CMR 15.000, this Certification authorizes the use of the System in Massachusetts.
3. The System may be installed on all facilities where a system in compliance with 310 CMR 15.000 exists on site or could be built and for which a site evaluation in compliance with 310 CMR 15.000 has been approved by the local approving authority, or by DEP if DEP approval is required by 310 CMR 15.000.

## **II. Design Standards**

1. The models listed in Table 1. are covered under this Certification.

**Table 1. Chamber Dimensions**

Model	Dimensions W x L x H Inches	Invert Height Inches
Field Drain Contactor C1	12 x 96 x 8.5	3
Field Drain Contactor C2	24 x 96 x 8.5	3
Field Drain Contactor C3	36 x 96 x 8.5	3
Field Drain Contactor C4	48 x 96 x 8.5	3
Contactor EZ-24	16 x 96 x 12.5	6
Contactor 100	36 x 90 x 12.5	6
Contactor 125	30 x 75 x 18	12
Recharger 180 and 180HD <sup>1</sup>	36 x 76 x 20.5	14
Recharger 280 and 280HD	47 x 84 x 26.5	20.5
Recharger 330 and 330HD	52 x 75 x 30.5	24

1. HD= Heavy Duty for H2O loading.
2. The System is an open-bottom leaching unit molded from high density, high molecular weight polyethylene (HDPE) with a 3.5 to 4.5 ounce non-woven geosynthetic filter fabric cover (CULTEC No. 410™). It can be installed without aggregate or distribution pipe as an absorption trench in accordance with the requirements in 310 CMR 15.251.
3. The use of aggregate as specified in 310 CMR 15.247 is not necessary with the System when installed as a trench, bed or field. When designed with aggregate in accordance with 310 CMR 15.253 the System shall be designed in accordance with Section II item 11.
4. The minimum separation between any two trenches shall be as specified in 310 CMR 15.251.

5. The requirement that the Chamber installed in trench configuration as specified in 310 CMR 15.253(6) be provided with inlets at intervals not to exceed 20 feet is not applicable to the System
6. For new construction, the applicant can size the System in a trench configuration without aggregate, using the effective leaching areas presented in Table 2. No System shall be designed and constructed with a soil absorption system area of less than 400 square feet.

**Table 2. Effective Leaching Area for New Construction  
And Remedial Sites**

Model	Effective Leaching <sup>1</sup> Area SF/LF	Effective Leaching <sup>2</sup> Area SF/LF
Field Drain Contactor C1	2.5	NA
Field Drain Contactor C2	4.2	NA
Field Drain Contactor C3	5.8	NA
Field Drain Contactor C4	NA	4.5
Contactor EZ-24	3.9	NA
Contactor 100	6.7	NA
Contactor 125	7.5	NA
Recharger 180 and 180HD	8.9	NA
Recharger 280 and 220HD	NA	7.3
Recharger 330 and 330HD	NA	8 <sup>3</sup>

1. Effective leaching area is equal to 1.67 (bottom width +(2x invert height)) for Systems 3 feet or less in width.
2. Effective leaching area is equal to 1.00 (bottom width +(2x invert height)) for Systems with a width greater than 3 feet.
3. In accordance with 310 CMR 15.251 the maximum trench width allowed to calculate effective leaching area is 4 feet.

7. Systems shall be sized in accordance with Table 3. for new construction in DEP designated nitrogen limited areas as defined in 310 CMR 15.214 and 15.215. The effective leaching area, as shown in the following table, shall be used for any System installed in a Department designated Nitrogen Sensitive Area or for any System that is installed for new construction where a private drinking water supply well is proposed to serve the facility, as defined in 310 CMR 15.214 (2) and for which a variance to the minimum setback distance of 100 feet has been granted.

**Table 3. Effective Leaching Area for Nitrogen Sensitive Areas**

Model	Effective Leaching <sup>1</sup> Area SF/LF
Field Drain Contactor C1	1.5
Field Drain Contactor C2	2.5
Field Drain Contactor C3	3.5
Field Drain Contactor C4	4.5
Contactor EZ-24	2.3
Contactor 100	4.0
Contactor 125	4.5
Recharger 180 and 180HD	5.3
Recharger 280 and 220HD	7.3
Recharger 330 and 330HD	8 <sup>2</sup>

1. Effective leaching area is equal to  $1.0(\text{bottom width} + (2 \times \text{invert height}))$ .
2. In accordance with 310 CMR 15.251 the maximum trench width allowed to calculate effective leaching area is 4 feet.
8. Systems installed on remedial sites shall be allowed to utilize the effective leaching areas presented in Table 2. above or additional reductions in soil absorption leaching area approved by the approving authority in accordance with 310 CMR 15.284. In no instance shall the reduction in the soil absorption system required in 310 CMR 15.242 exceed the maximum reduction allowed for alternative systems approved in accordance with 310 CMR 15.284. The effective leaching areas presented in Table 3. above shall be used for remedial sites located in Department designated Zone II or IWPA when the facility is to be brought into full compliance in accordance with 310 CMR 15.404.
9. In accordance with 310 CMR 15.240 (6) absorption trenches should be used whenever possible. When the System is installed for new construction without aggregate in a bed or field configuration, as defined in 310 CMR 15.252, the System shall be designed using the effective leaching area for the bottom width presented in Table 4. Chambers shall be spaced a minimum of six inches apart (edge-to-edge) when used in a bed configuration. No system shall be designed and constructed with a leaching area of less than 400 square feet. The effective leaching area shall only be equal to the bottom width for any System installed in a Department designated Nitrogen Sensitive Area or for any System that is installed

for new construction where a private drinking water supply well is proposed to serve the facility, as defined in 310 CMR 15.214 (2) and for which a variance to the minimum setback distance of 100 feet has been granted.

**Table 4. Effective Leaching Area for Bed or Field Configuration**

Model	Effective Leaching <sup>1</sup> Area SF/LF	Effective Leaching <sup>2</sup> Area SF/LF
Field Drain Contactor C1	1.7	NA
Field Drain Contactor C2	3.3	NA
Field Drain Contactor C3	5.0	NA
Field Drain Contactor C4	NA	4.0
Contactor EZ-24	2.2	NA
Contactor 100	5.0	NA
Contactor 125	4.2	NA
Recharger 180 and 180HD	5.0	NA
Recharger 280 and 220HD	NA	3.9
Recharger 330 and 330HD	NA	4 <sup>3</sup>

1. Effective Leaching area is equal to 1.67 times bottom width only.
  2. Effective Leaching area is equal to 1.00 times bottom width only.
  3. In accordance with 310 CMR 15.251 the maximum width allowed to calculate effective leaching area is 4 feet.
10. The System, when installed in a bed or field configuration without aggregate on remedial sites, shall utilize the effective leaching areas presented in Table 4. above or additional reductions in soil absorption system area approved by the approving authority in accordance with 310 CMR 15.284. In no instance shall the reduction in the soil absorption system area required in 310 CMR 15.242 exceed the maximum reduction allowed for alternative systems approved in accordance with 310 CMR 15.284.
  11. The System, when installed as specified in 310 CMR 15.253: Pits, Galleries, or Chambers, shall have an aggregate base and/or be surrounded by aggregate and shall be sized as specified in 310 CMR 15.253 (1) (a) and (b). Effective depth can be increased up to two feet with the corresponding addition of up to 20 inches of base aggregate for the Field Drain Contactors and up to 12 inches for the

Contactor 125. Bottom width can be increased by two to eight SF/LF with the corresponding addition of one to four feet of aggregate per side.

**III. General Conditions**

1. The provisions of 310 CMR 15.000 are applicable to the use of the System, except those that specifically have been varied by the terms of this Certification.
2. The facility served by the System, and the System itself, shall be open to inspection and sampling by the Department and the local approving authority at all reasonable times.
3. In accordance with applicable law, the Department and the local approving authority may require the owner of the System to cease use of the System and/or to take any other action as it deems necessary to protect public health, safety, welfare or the environment.
4. The Department has not determined that the performance of the System will provide a level of protection to the environment that is at least equivalent to that of a sewer. Accordingly, no new System shall be constructed, and no System shall be upgraded or expanded, if it is feasible to connect the facility to a sanitary sewer, unless allowed pursuant to 310 CMR 15.004.
5. Design, installation and use of the System shall be in strict conformance with the Company's DEP approved plans and specifications and 310 CMR 15.000, subject to this Certification.

**IV. Conditions Applicable to the System Owner**

1. The System is approved for the treatment and disposal of sanitary sewage only. Any wastes that are non-sanitary sewage generated or used at the facility served by the System shall not be introduced into the on-site sewage disposal system and shall be lawfully disposed of.
2. For new construction, the owner initially shall size a soil absorption system in accordance with 310 CMR 15.242 to demonstrate that a conventional Title 5 soil adsorption system using aggregate, including a reserve area, can be installed on the site. The owner may than size the soil absorption system for the System. The total area required for the aggregate system, which may include the area designated for the System, and a reserve area shall be preserved and the owner shall ensure that no permanent structures or other structures are constructed on that area and that the area is not disturbed in any manner that will render it unusable for future installation of a conventional Title 5 soil absorption system.
3. The owner of the System shall at all times properly operate and maintain the on-site sewage disposal system.

4. The owner shall furnish the Department any information that the Department requests regarding the operation and performance of the System, within 21 days of the date of receipt of that request.
5. No owner shall authorize or allow the installation of the System other than by a person trained by the Company to install the System.

**V. Conditions Applicable to the Company**

1. By January 31st of each year, the Company shall submit to the Department a report, signed by a corporate officer, general partner, or Company owner that contains information on the System for the previous calendar year. The report shall state known failures, malfunctions, and corrective actions taken for the System as well as the date and address of each event.
2. The Company shall notify the Department's Director of Watershed Permitting at least 30 days in advance of any proposed transfer of ownership of the technology for which this Certification is issued. Said notification shall include the name and address of the proposed new owner and a written agreement between the existing and proposed new owner containing a specific date for transfer of ownership, responsibility, coverage and liability between them. All provisions of this Certification applicable to the Company shall be applicable to successors and assigns of the Company, unless the Department determines otherwise.
3. The Company shall furnish the Department any information that the Department requests regarding the System, within 21 days of the date of receipt of that request.
4. Prior to any sale of the System, the Company shall provide the purchaser with a copy of this Certification. In any contract for distribution or sale of the System, the Company shall require the distributor or seller to provide the purchaser of the System, prior to any sale of the System, with a copy of this Certification.
5. The Company shall prepare and provide the Department with an installation manual specifically detailing procedures for installation of its System. The Company shall institute and maintain a training program in the proper installation of its System in accordance with the manual and provide a training course at least annually for prospective installers. The Company shall certify that installers have passed the Company's training qualifications, maintain a list of certified installers, submit a copy to the Department, and update the list annually. Updated lists shall be forwarded to the Department.
6. The Company shall not sell the System to installers unless they are trained to install these Systems by the Company.

**VI. Conditions Applicable to Installers of the System**

1. Each Installer shall install the System in accordance with Company training on the installation of the System and the conditions of this Certification.
2. No Installer shall install the System unless the Installer has been trained by the Company on installation of the System.

**VII. Reporting**

1. All submittals of notices and documents to the Department required by this Certification shall be submitted to:

Director  
Watershed Permitting Program  
Department of Environmental Protection  
One Winter Street - 6th floor  
Boston, Massachusetts 02108

**VIII. Rights of the Department**

1. The Department may suspend, modify or revoke this Certification for cause, including, but not limited to, non-compliance with the terms of this Certification, non-payment of an annual compliance assurance fee, for obtaining the Certification by misrepresentation or failure to disclose fully all relevant facts or any change in or discovery of conditions that would constitute grounds for discontinuance of the Certification, or as necessary for the protection of public health, safety, welfare or the environment, and as authorized by applicable law. The Department reserves its rights to take any enforcement action authorized by law with respect to this Certification, the System, the owner, or operator of the System and the Company.